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10/588,807

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Alain Colin

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Davidson, Davidson & Kappel, LLC  
485 7th Avenue  
14th Floor  
New York, NY 10018

EXAMINER

BANH, DAVID H

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,807	<b>Applicant(s)</b> COLIN ET AL.	
	<b>Examiner</b> DAVID BANH	<b>Art Unit</b> 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11,13-17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11,13-17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed on December 1, 2010 have been fully considered but they are not persuasive. A new interpretation of Eckelmeyer has the second signal being the signal produced by the divider **84** and the further signal being produced by a different encoder **52**. These signals are based on different encoders **52, 54** which are not directly intertwined and are thus mutually independent. The new rejection of Ikeguchi in view of Ecklemeyer has been provided for the newly added claim 21.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11, 13-17 and 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. Claim 11 appears to omit any structural connection or relationship between the further synthesizer element and remainder of the rotary element. The further synthesizer is not recited as being part of the evaluation unit or otherwise connected to either the encoder, evaluation unit or any portion of the rotary element. There appears to be an indeterminate gap because these elements.

Claims 13-17 and 19-21 comprise all of the limitations of claim 11, including the incomplete structural recitation, but do not appear to remedy the omission.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 11, 13, 14, 16, 17, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Eckelmeyer (US Patent 4,271,379).

For claim 11: Eckelmeyer teaches a rotary element **34, 50** (see column 3, lines 35-36, the rotary element can be any one or more of rotating elements in the printing press including particularly the nip roller **34** and the motor of the nip roller **50**) of a printing press comprising an encoder **54** for generating a periodic first signal in response to the rotation of the rotary element **50** (see column 3, lines 35-50, the motor **50** is provided with a shaft encoder **54** which provides a number of pulses per rotation of the motor), an evaluation unit **52, 80, 82, 84, 90** linked to the encoder (see Fig. 2 for the arrow being the linkage) having a first synthesizer **82, 84** generating a second signal having a resolution ratio, a frequency ratio and a phase relation to the first signal (see column 4, lines 30-55, the goal of the multiplier and the divider is to provide a second signal, thus the two together can be considered a synthesizer for a second signal, the signal being based on the first signal to convey similar datum must have a resolution ratio, frequency ratio and phase relation to the first signal), and a control interface **90** for data exchange coupled to the first synthesizer **82, 84** (see Fig. 2, control **90** connected to element **84**) for setting at least one of the resolution ratio, frequency ratio and phase

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relation of the first signal to the second signal based on data input by a user and transmitted to the first synthesizer (see column 5, lines 5-20, the thumbwheel **92** controls the divider ratio, which thus controls the frequency ratio of the second signal, and is adjustable manually by a user), and a further synthesizer **52** (see column 4, lines 30-35, encoder **52** is also a synthesizer for a pulse signal) for generating a further signal having a further resolution ratio, a further frequency ratio and a further phase relation to the first signal, at least one of the resolution ratio, frequency ratio or phase relation of the further signal being different from the resolution ratio, frequency ratio or phase relation of the second signal (see column 4, lines 30-50, the frequency ratio of the two encoders **52**, **54** is different and is different again from the signal generated by synthesizer **84**), the second signal and the further signal being mutually independent of each other (see column 3, lines 35-40, while the signals are intended to effect a synchronization, they are not coupled, the second signal is based on the output of motor **50**, albeit scaled, and the further signal based on the output of the motor **25**).

For claim 13: Eckelmeyer teaches the rotary element of claim 11 wherein the evaluation unit includes at least an output interface for driving a clock pulse controlled device (see column 4, lines 25-30, motor **50**).

For claim 14: Eckelmeyer teaches the rotary element of claim 11 wherein the resolution ratio of the second signal is smaller than the first signal (see column 4, lines 30-40, after division, the reference attempts to get the resolution of the second signal to around 100Hz from 12600Hz for the first signal).

For claim 16: Eckelmeyer teaches the rotary element of claim 11 wherein the first and second signals are each a sequence of signal pulses (see column 4, lines 30-50, the signals are both a sequence of pulses).

For claim 17: Eckelmeyer teaches the rotary element of claim 11 wherein the rotary element is a roller **34** (see column 3, line 34).

For claim 19: Eckelmeyer teaches a folding apparatus (see column 3, lines 10-15, folder **14**) comprising the element of claim 11 (see column 3, lines 20-28, the nip roller and Fig. 2 are part of the folding apparatus).

For claim 20: Eckelmeyer teaches an offset press (see Fig. 1, press unit **10** is an offset press unit which makes Fig. 1 together an offset press) comprising the rotary element of claim 11 (see Fig. 1 together with Fig. 2).

6. Claims 11, 13, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikeguchi (US Patent 5,263,413).

For claim 11: Ikeguchi teaches a rotary element of a printing press (see Fig. 1, rollers) comprising an encoder **14<sub>1</sub>** for generating a periodic signal in response to rotation of the rotary element **1<sub>1</sub>**, and an evaluation unit **21** linked to the encoder **14<sub>1</sub>** having a first synthesizer **12<sub>1</sub>** for generating a second signal having a resolution, frequency and phase relation to the first signal, a control interface **2** (see Fig. 4, producing the signal **v<sub>ref</sub>**) for data exchange coupled to the first synthesizer for setting at least one of the resolution ratio, frequency ratio and phase relation of the first signal to the second signal based on input data from the user (see column 7, lines 5-20, the input device determines the desired speed of the rollers which changes the phase of the

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signals), and a further synthesizer **12<sub>2</sub>** for generating having a further resolution ratio and frequency ratio and phase relation to the first signal (see Fig. 1, the two signals control different motors for different rollers, but all have some resolution ratio, frequency ratio and phase relation), wherein the second and further signal are mutually independent of one another (see Fig. 1, the signals are not generated in a way that they depend from one another).

For claim 13: Ikeguchi teaches the rotary element of claim 11 wherein the evaluation unit includes at least one output interface **12<sub>1</sub>**, the interface outputting the second signal for driving a clock pulse controlled device (motor **13**).

For claim 17: Ikeguchi teaches the rotary element of claim 11 wherein the rotary element is a cylinder (see Fig. 1).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeguchi (US Patent 5,263,413) in view of Eckelmeyer (US Patent 4,271,379).

For claim 15: Ikeguchi teaches all of the limitations of claim 15 except for a divider that is upstream of the synthesizer for reducing a resolution of the first signal. However, Eckelmeyer teaches a system wherein pulses from an encoder **54** are read and the signal is passed through a divider device **84** before processing and generation

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of output signals **74** (see Fig. 2 and column 4, lines 40-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an encoder with a divider which standardizes the frequency of the signal as taught in Ecklemeyer within the roller motor control system of Ikeguchi for the purpose of allowing a more diverse range of encoders to be used to monitor rollers with any given controller.

For claim 21: Ikeguchi teaches the rotary element of claim 11. In Ikeguchi, the second signal and further signals necessarily can have frequencies and phases different from the first signal, since they may control the motor to change the roller speed (see column 7, lines 5-15, the input controls the speed of revolution of the printing roller; if the desired speed is changed, the output frequency and phase of the second and further signals will have to change and become distinct from the first signal at least temporarily). Ikeguchi does not teach that the resolution of the second signal and further signal have a different resolution from the first signal. However, Ecklemeyer teaches that different devices may have different resolutions (see column 4, lines 3-40, there are different encoders **52, 54** producing different numbers of pulses per rotation), the resolution of the output signal **74** then also being different (see column 4, lines 5-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have output signals, being the second and further signals, with different resolutions from the input first signal for the purpose of controlling diverse motors with different signal scanning calibrations.



***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID BANH whose telephone number is (571)270-3851. The examiner can normally be reached on M-F 9:30AM - 8PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DHB

/Ren L Yan/  
Primary Examiner, Art Unit 2854